

unrelated because they have different effects and functions, such as a method of making an article, and an apparatus for providing reference or alignment.

Contrary to the Examiner's belief, however, the claims of Group I and II are in fact related. Indeed, the Specification clearly discloses that the apparatus of claim Group II is made by the method of claim Group I. For example, with reference to the method shown in FIG. 1, which corresponds to the method of claim Group I, the Specification recites that (page 4, lines 7-12):

FIG. 1 shows an embodiment of a method of fabricating a nanostructure that involves patterning a film including a vector polymer that has a payload moiety, and removing organic components of the patterned film to form a payload-containing nanoparticle. This method enables nanoparticles to be formed with precisely-controlled sizes and at locations that may be controlled with lithographic precision.

The Specification elaborates on the above teaching by explaining that an apparatus corresponding to claim Group II may be fabricated by the method corresponding to claim Group I (page 11, line 22, through page 12, line 14):

The embodiments described in detail above enable nanoparticles 34 to be formed at precisely-controlled locations on the surface of substrate 12 as a result of the ability to lithographically place the precursor nanoparticles 30. Such lithographic placement control enables substantially identical substrates to be formed in batches with at least one nanoparticle positioned on the substrate surface relative to respective reference features on corresponding substrates within a range of distances distributed with a standard deviation of at most 0.1 μ m, which is a typical lithographic alignment capability in a semiconductor manufacturing environment. ...

... in implementations in which the size (e.g., the diameter) of the catalytic nanoparticles 34 are typically within a range of 0.5-10 nm, and more typically within a range of 1-3 nm, substantially single-walled carbon nanotubes 36 may be formed at each of the nanoparticles.

Thus, the Specification clearly discloses that claim Group I and claim Group II are related as process of making and product made, respectively. Therefore, claim Group I and claim Group II are not independent inventions and cannot properly be restricted on this basis.

For the reasons explained above, the Examiner has failed to establish a proper *prima facie* basis for requiring restriction of the claims and therefore the restriction requirement should be withdrawn.

II. No Valid Reason Exists for Dividing Among the Related Inventions

In general, if “the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among related inventions” (MPEP § 808.02).

The Examiner has classified the claims of Group I into class/subclass 264/293, which encompasses, in general, processes in which the surface configuration only of the work piece is altered by raising bosses or protuberances thereon or causing surface portions to be depressed below the plane of the work piece surface. The Examiner has classified the claims of Group II into class/subclass 430/5, which encompasses, in general, process, composition, or product for radiation imagery chemistry and, in particular, subject matter in which the light modifying means is in the form of a radiation mask.

Although it is possible that prior art relating to the subject matter recited in the claims might be found based on the Examiner’s proposed classifications, a more appropriate classification would be class/subclass 502/100, which encompasses products and processes of making a catalyst or a catalyst precursor. Indeed, the Application discloses that the nanoparticles recited in the claims of Groups I and II are particularly useful as catalysts in the formation of carbon nanotubes (see, e.g., page 12, lines 6-20; see also the Background, which describes the leveraging of the catalytic properties of certain nanoparticles for forming carbon nanotubes). Therefore, class/subclass 502/100 encompasses methods of manufacture and apparatus made those methods, and matches the subject matter recited in all of the claims much more closely than the Examiner’s proposed classifications.

Thus, by classifying all of the claims into a more appropriate class/subclass that encompasses all of the claims, a separate examination of the claims would not be required. Accordingly, since the classification would be the same for all claims under the more appropriate classification of all of the claims into class/subclass 502/100, “no reasons exist for dividing among related inventions” and the restriction requirement should be withdrawn in accordance with MPEP § 808.02.

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III. Conclusion

For the reasons explained above, Applicant requests that the restriction requirement be withdrawn upon reconsideration.

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Respectfully submitted,

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